

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

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Claim 1: (Amended) A method of managing subscriber data in a telecommunications system, wherein said telecommunications system comprises a first switch for providing circuit switching services and a second switch for providing packet switching services, said method comprising the steps of:

receiving one or more messages from a mobile station;

requesting the subscriber data from a first database, wherein the subscriber data ~~containing circuit switching data, and packet switching data, or~~ includes circuit switching data and packet switching data;

receiving the subscriber data from the first database; and

storing the subscriber data in the second database, wherein the second database is communicably coupled to the first switch for providing circuit switching services to the mobile station, and is communicably coupled to the second switch for providing packet switching services to the mobile station.

Claim 2. (Original) The method as recited in claim 1, wherein the first database is a home location register.

Claim 3. (Original) The method as recited in claim 1, wherein the second database is a universal visitor location register located in a new service area

Claim 4. (Original) The method as recited in claim 1, further comprising the step of communicating one or more messages with one or more databases in response to the one or more messages from the mobile station

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Claim 5. (Original) The method as recited in claim 1, wherein the step of requesting the subscriber data from the first database comprises the step of sending one or more messages to the first database to request the subscriber data

Claim 6. (Original) The method as recited in claim 4, wherein the step of communicating one or more messages with one or more databases comprises:

sending one or more messages to a third database; and

receiving one or more messages from the third database in response to the one or more messages being sent to the third database.

Claim 7. (Original) The method as recited in claim 6, wherein the third database is a universal visitor location register located in an old service area.

Claim 8. (Original) The method as recited in claim 6, wherein the third database is a SGSN located in an old service area.

Claim 9. (Original) The method as recited in claim 6, wherein the third database is a VLR located in an old service area.

Claim 10. (Original) The method as recited in claim 5, wherein the one or more messages being sent to the first database to request the subscriber data is an update location signal.

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Claim 11. (Original) The method as recited in claim 5, wherein the one or more messages received from the mobile station at the second database is a routing area update request signal.

Claim 12. (Original) The method as recited in claim 6, wherein the one or more messages being sent to the third database is a context request signal.

Claim 13. (Original) The method as recited in claim 6, wherein the one or more messages received by the second database is a context response signal.

Claim 14. (Original) The method as recited in claim 6, wherein the one or more messages being sent to the third database is a send identification signal.

Claim 15. (Original) The method as recited in claim 6, wherein the one or more messages received by the second database is a send identification acknowledgment signal.

Claim 16. (Original) The method as recited in claim 1, further comprising the step of communicating one or more messages between the first database and a third database in response to the step of requesting the subscriber data from the first database.

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Claim 17. (Original) The method as recited in claim 16, wherein the step of communicating one or more messages between the first database and the third database comprises the steps of:

    sending one or more messages from the first database to the third database; and

    sending one or more messages from the third database to the first database in response to the one or more messages sent by the first database.

Claim 18. (Original) The method as recited in claim 17, wherein the one or more messages being sent to the third database is a cancel location signal.

Claim 19. (Original) The method as recited in claim 17, wherein the one or more messages being to the first database is a cancel location acknowledgment signal.

Claim 20. (Original) The method as recited in claim 1, wherein the mobile station is roaming from an old service area to a new service area.

Claim 21: (Amended) A method of restoring subscriber data of a mobile station in one or more network devices, comprising the steps of:

connecting a circuit switching network device and a packet switching network device to a first database of subscriber data, said first database storing both circuit switching data and packet switching data;

setting one or more indicators in the first database to indicate whether a location area identity stored in the first database for the mobile station is confirmed by radio contact;

receiving a request in the first database from the circuit switching network device or the packet switching network device to restore the subscriber data to the requesting network device; from the one or more network devices, the subscriber data containing circuit switching data, packet switching data, or circuit switching data and packet switching data;

setting one or more indicators in a first database; and]

coordinating with at least a second database to make the subscriber data consistent;  
and

restoring the subscriber data to the requesting network device if the indicators indicate that the location area identity stored in the first database for the mobile station is confirmed by radio contact.

Claim 22: (Original) The method as recited in claim 21, further comprising the steps of:

determining whether the subscriber data is stored in the first database; and  
receiving the subscriber data from the second database when the subscriber data is not stored in the first database.

✓ Claim 23: Please cancel Claim 23.

Claim 24: (Original) The method as recited in claim 21, wherein the one or more indicators indicates whether the subscriber data stored in the first database is consistent with the subscriber data stored in the second database.

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Claim 25. (Original) The method as recited in claim 21, wherein the one or more indicators indicates whether the second database record of the first database number of the mobile station is confirmed by radio contact.

Claim 26. (Original) The method as recited in claim 21, wherein the first database is a universal visitor location register.

Claim 27. (Original) The method as recited in claim 21, wherein the second database is a home location register.

Claim 28: (Amended) A telecommunications system comprising:

a first database containing subscriber data of one or more mobile subscribers, wherein the subscriber data ~~containing circuit switching data, packet switching data, or~~ includes circuit switching data and packet switching data;

a second database communicably linked to the first database, wherein the second database ~~is for receiving~~ receives the subscriber data contained in the first database and ~~storing~~ stores the subscriber data for subscribers roaming within a service area covered by the second database; ~~and~~

~~one or more~~ a circuit switching network devices device connected to the second database, ~~the one or more network devices are for~~ said circuit switching network device providing ~~one or more types of~~ circuit switching telecommunications services to the one or more mobile subscribers based upon the subscriber data; and

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a packet switching network device connected to the second database, said packet switching network device providing packet switching telecommunications services to the one or more mobile subscribers based upon the subscriber data.

Claim 29: (Amended) The system as recited in claim 28, further comprising ÷ one or more service areas ; and , wherein each service area includes one or more first databases, the second database, ~~and the one or more network devices~~ the circuit switching network device, and the packet switching network device.

Claim 30: (Original) The system as recited in claim 28, wherein the first database is a home location register.

Claim 31. (Original) The system as recited in claim 28, wherein the second database is a universal visitor location register.

Claim 32: (Amended) The system as recited in claim 28, wherein the ~~one or more network devices comprises: one or more~~ circuit switching network device is a mobile switching ~~centers~~ center for providing circuit switching services to the one or more mobile subscribers.

Claim 33: (Amended) The system as recited in claim 28, wherein the ~~one or more network devices comprises: one or more~~ packet switching network device is a signaling nodes node for providing packet switching services to the one or more mobile subscribers.

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Claim 34: (Amended) A computer program ~~for~~ embodied on a computer readable medium, said program managing subscriber data in a telecommunications system ~~embodied on a computer readable medium, the, said~~ computer program comprising:

- a code segment for receiving one or more messages from a mobile station;
- a code segment for requesting the subscriber data from a first database, wherein the subscriber data ~~containing circuit switching data, packet switching data, or~~ includes circuit switching data and packet switching data;
- a code segment for receiving the subscriber data from the first database; and
- a code segment for storing the subscriber data in the second database;
- a code segment for providing the subscriber data from the second database to a circuit switching network device for providing circuit switching services to one or more mobile stations; and
- a code segment for providing the subscriber data from the second database to a packet switching network device for providing packet switching services to one or more mobile stations.



Claim 35: (Original) The computer program as recited in claim 34, further comprising the step of a code segment for communicating one or more messages with one or more databases in response to the one or more messages from the mobile station.

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Claim 36. (Original) The computer program as recited in claim 34, wherein the code segment for requesting the subscriber data from the first database comprises the code segment for sending one or more messages to the first database to request the subscriber data.

Claim 37. (Original) The computer program as recited in claim 34, wherein the code segment for communicating one or more messages with one or more databases comprises:

a code segment for sending one or more messages to a third database; and  
a code segment for receiving one or more messages in response to the one or more messages being sent to the third database.

Claim 38. (Original) The computer program as recited in claim 34 further comprising a code segment for communicating one or more messages between the first database and a third database in response to the step of requesting the subscriber data from the first data.

Claim 39: (Amended) A computer program for restoring subscriber data of a mobile station in one or more network devices comprising:

a code segment for connecting a circuit switching network device and a packet switching network device to a first database of subscriber data, said first database storing both circuit switching data and packet switching data;

a code segment for setting one or more indicators in the first database to indicate whether a location area identity stored in the first database for the mobile station is confirmed by radio contact;

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a code segment for receiving a request in the first database from the circuit switching network device or the packet switching network device to restore the subscriber data to the requesting network device; ~~from the one or more network devices, the subscriber data containing circuit switching data, packet switching data, or circuit switching data and packet switching data;~~

~~a code segment for setting one or more indicators in a first database; and~~

a code segment for coordinating with at least a second database to make the subscriber data consistent; and

a code segment for restoring the subscriber data to the requesting network device if the indicators indicate that the location area identity stored in the first database for the mobile station is confirmed by radio contact.

Claim 40: (Original) The computer program as recited in claim 39, further comprising:

a code segment for determining whether the subscriber data is stored in the first database; and

a code segment for receiving the subscriber data from the second database when the subscriber data is not stored in the first database.

Claim 41. (Original) The computer program as recited in claim 39, wherein the first database is a universal visitor location register.